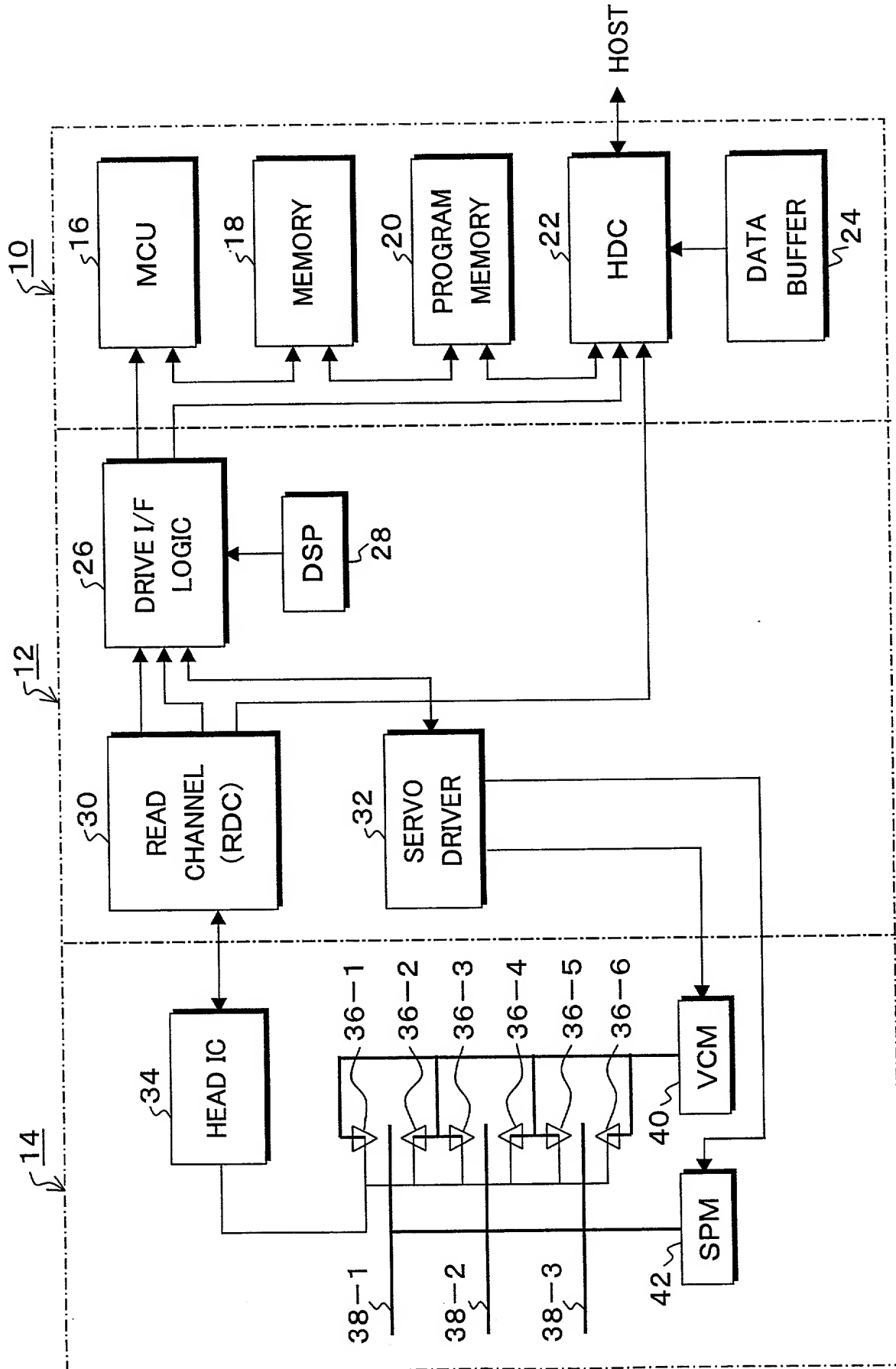


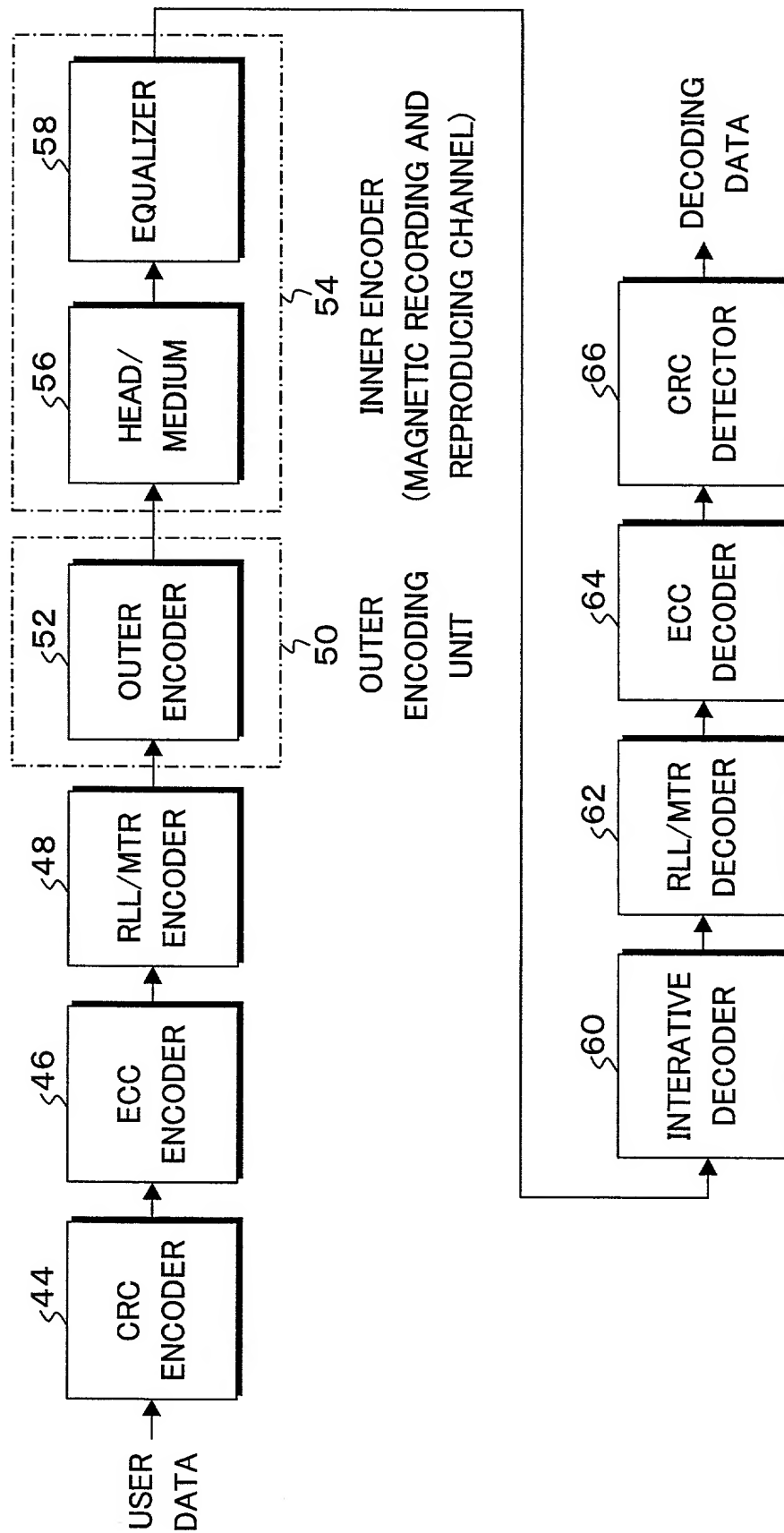
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FIG. 1



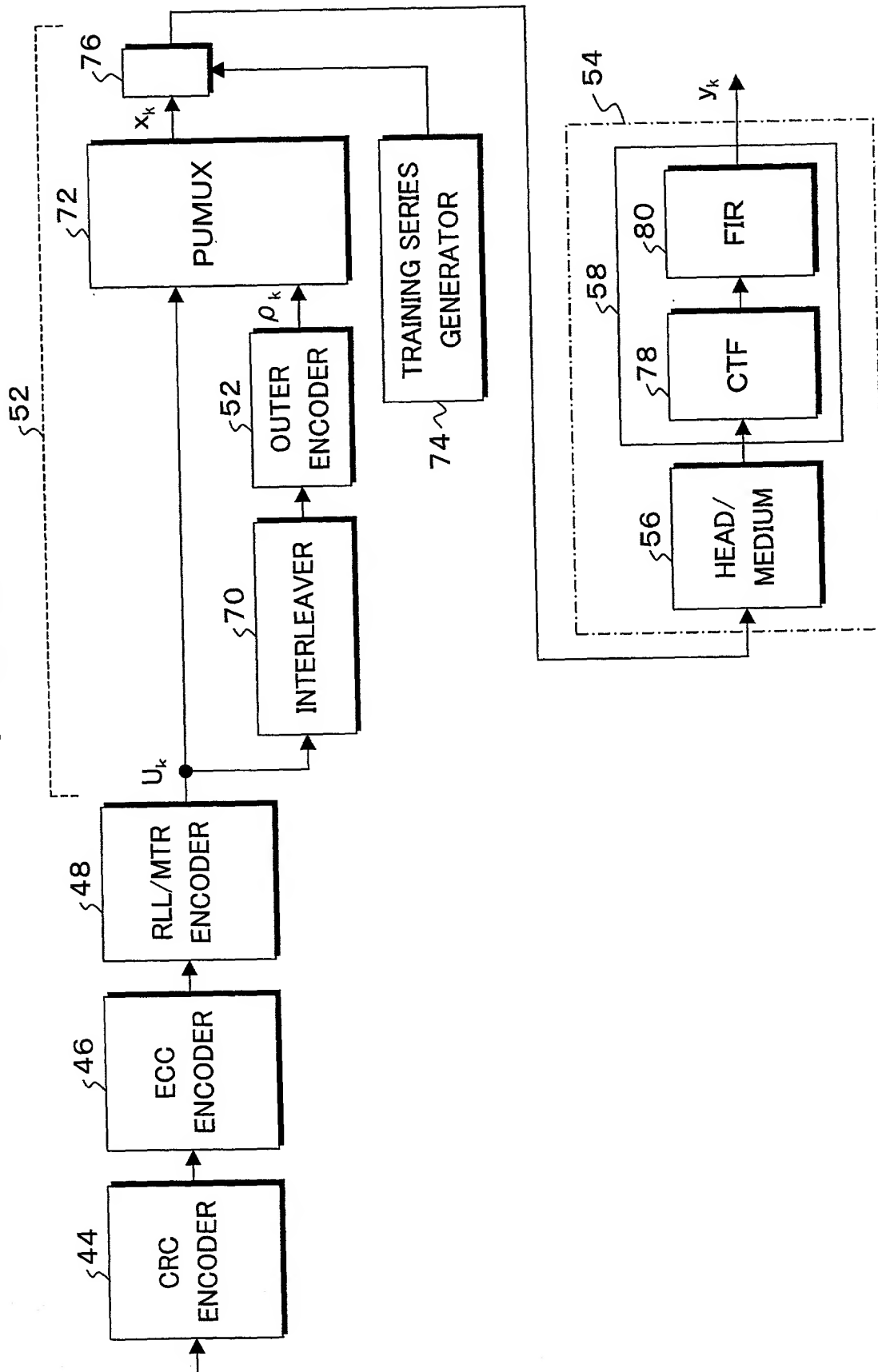
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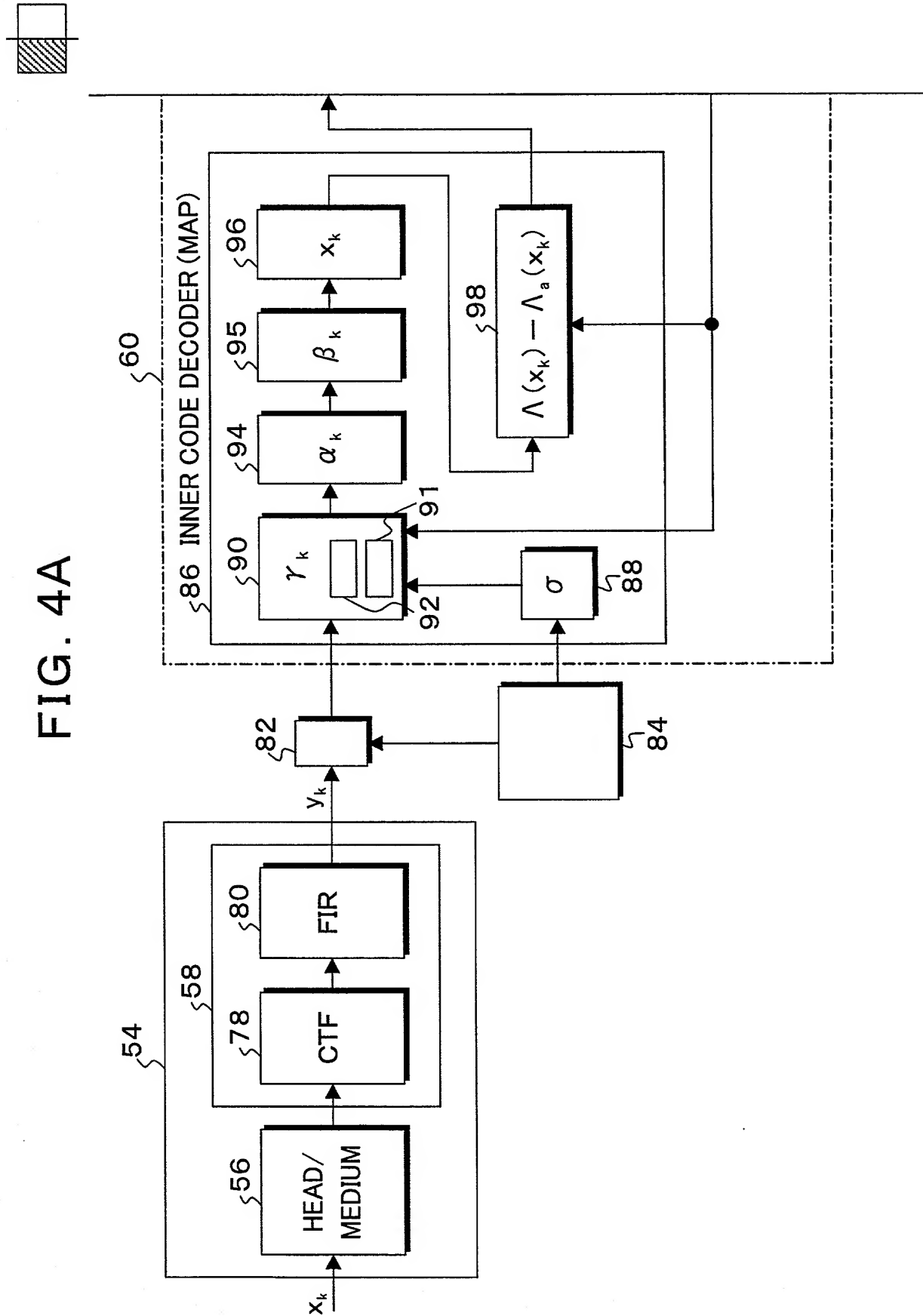
FIG. 2



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FIG. 3





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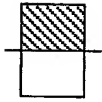


FIG. 4B

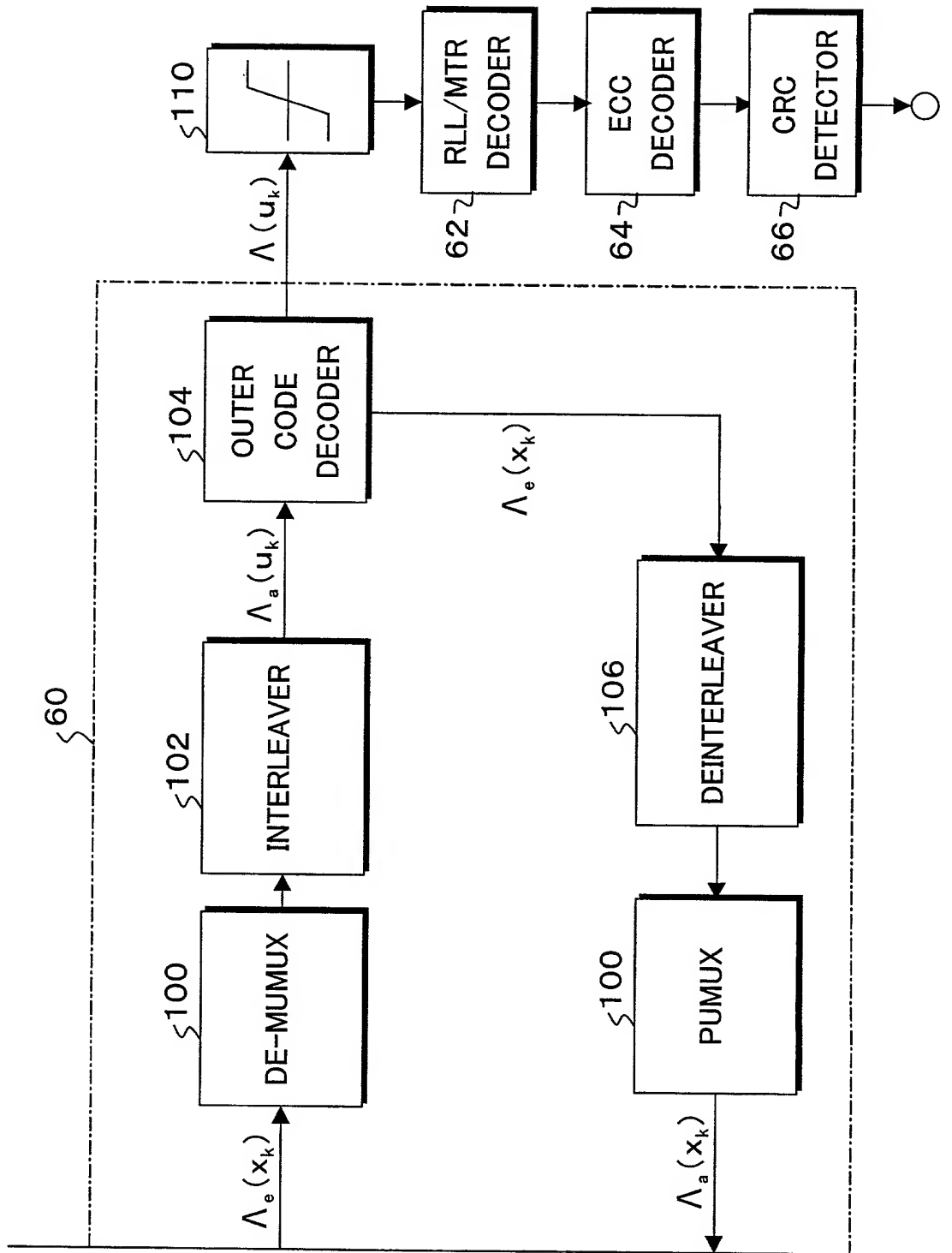


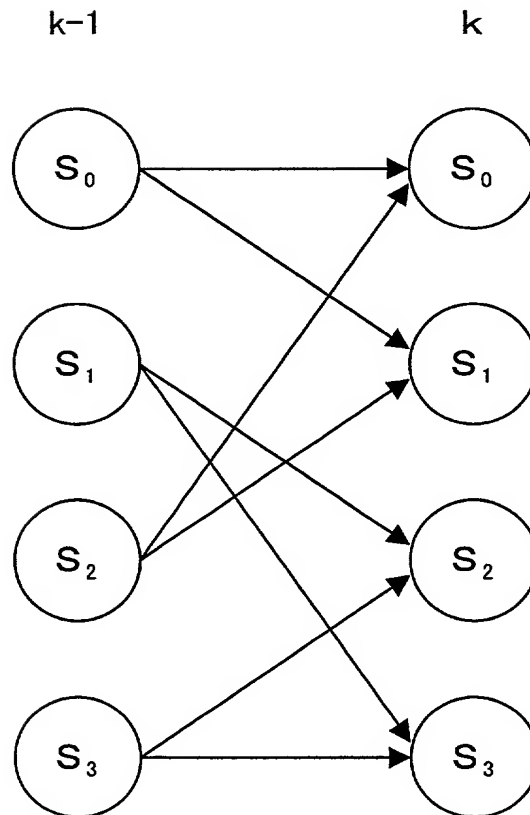
FIG. 4B

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FIG. 5

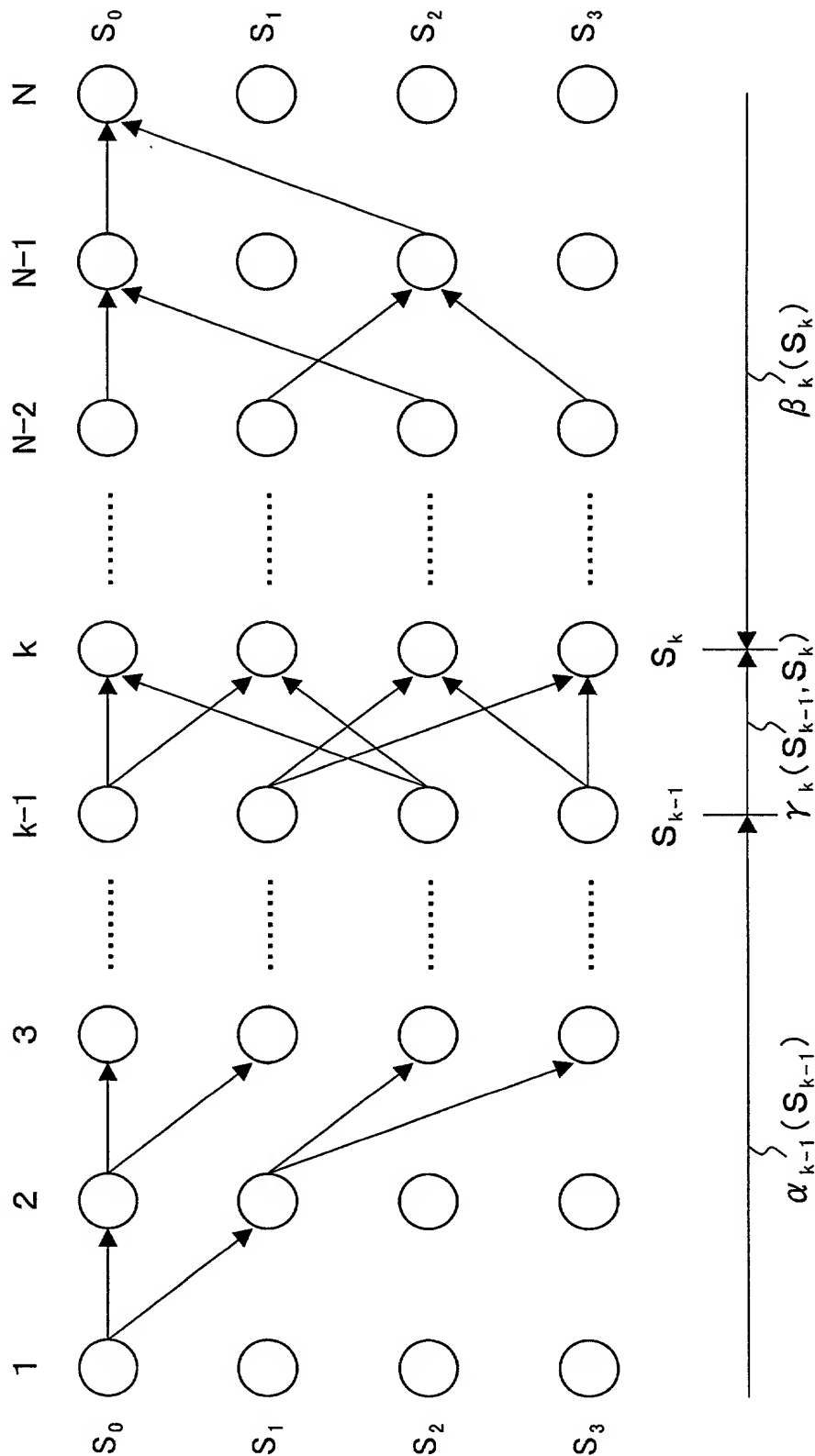
$x_{k-1}x_k$	S_0
00	S_1
01	S_2
10	S_3
11	S_4

FIG. 6



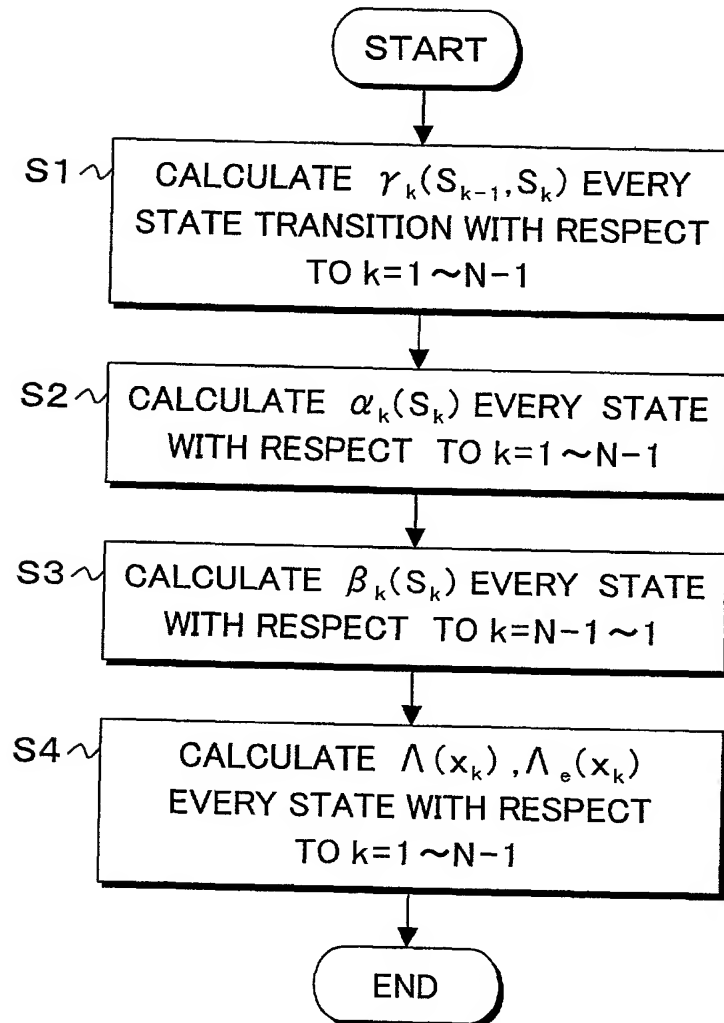
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FIG. 7



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FIG. 8



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FIG. 9

RECORDING SIGNAL x_k ON MEDIUM							STATE	MEAN VALUE OF WAVEFORM AFTER EQUALIZATION
x_{k-N}	...	x_{k-1}	x_k	x_{k+1}	...	x_{k+Q}		
0	...	0	0	0	...	0	S^m_0	$d(S^m_0)$
0	...	0	0	0	...	1	S^m_1	$d(S^m_1)$
...
1	...	1	1	1	...	0	$S^{m_2^{[N+Q+1]-2}}$	$d(S^{m_2^{[N+Q+1]-2}})$
1	...	1	1	1	...	1	$S^{m_2^{[N+Q+1]-1}}$	$d(S^{m_2^{[N+Q+1]-1}})$

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FIG. 10A

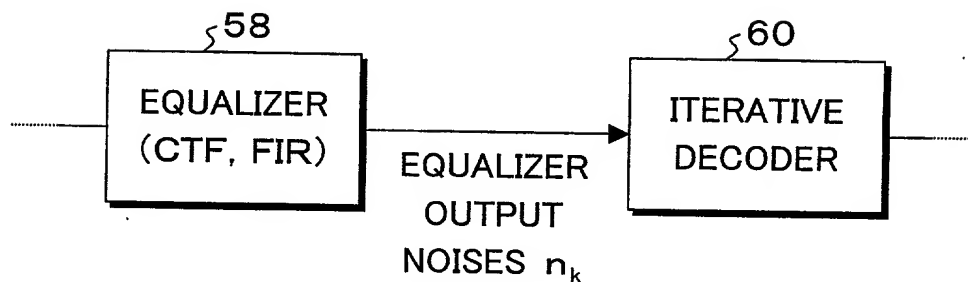


FIG. 10B

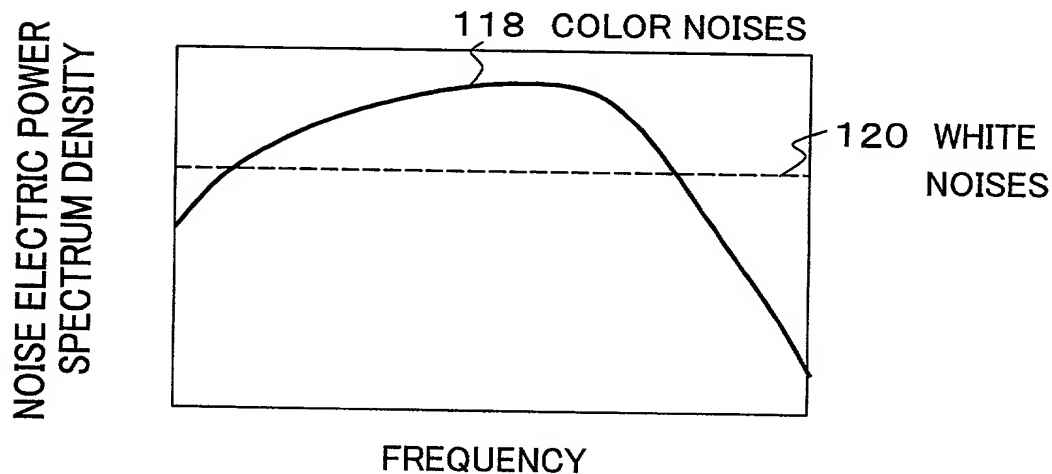
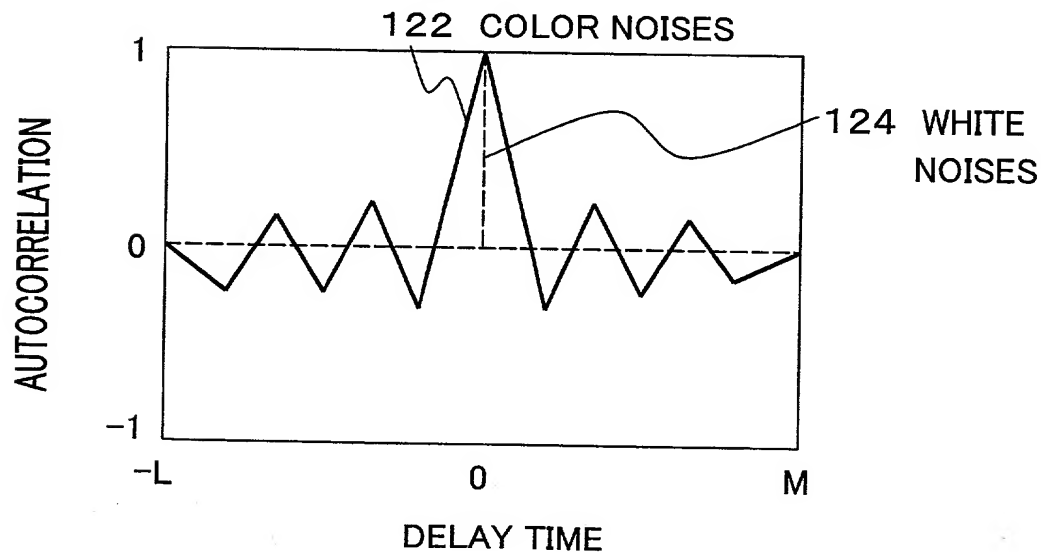


FIG. 10C



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FIG. 11

STATE	CORRELATION OF NOISES						STANDARD DEVIATION OF NOISES $\sigma(S^m_k)$
	$e_{-L}(S^m_k)$...	$e_{-1}(S^m_k)$	$e_1(S^m_k)$...	$e_M(S^m_k)$	
S^m_0	$e_{-L}(S^m_0)$	...	$e_{-1}(S^m_0)$	$e_1(S^m_0)$	...	$e_M(S^m_0)$	$\sigma(S^m_0)$
S^m_1	$e_{-L}(S^m_1)$	...	$e_{-1}(S^m_1)$	$e_1(S^m_1)$	...	$e_M(S^m_1)$	$\sigma(S^m_1)$
.....
$S^m_{2^{[N+Q+1]-2}}$	$e_{-L}(S^m_{2^{[N+Q+1]-2}})$...	$e_{-1}(S^m_{2^{[N+Q+1]-2}})$	$e_1(S^m_{2^{[N+Q+1]-2}})$...	$e_M(S^m_{2^{[N+Q+1]-2}})$	$\sigma(S^m_{2^{[N+Q+1]-2}})$
$S^m_{2^{[N+Q+1]-1}}$	$e_{-L}(S^m_{2^{[N+Q+1]-1}})$...	$e_{-1}(S^m_{2^{[N+Q+1]-1}})$	$e_1(S^m_{2^{[N+Q+1]-1}})$...	$e_M(S^m_{2^{[N+Q+1]-1}})$	$\sigma(S^m_{2^{[N+Q+1]-1}})$

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FIG. 12

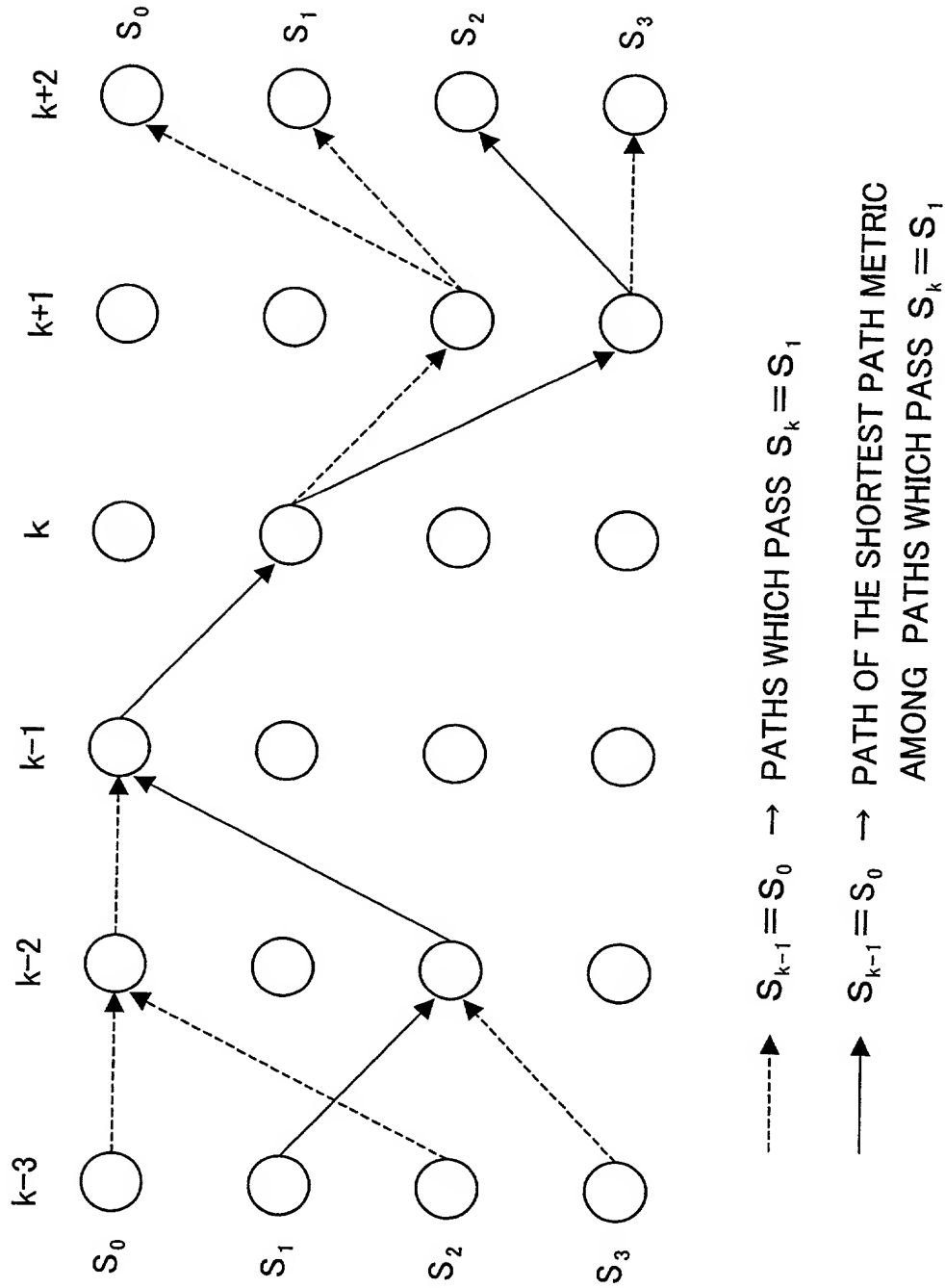
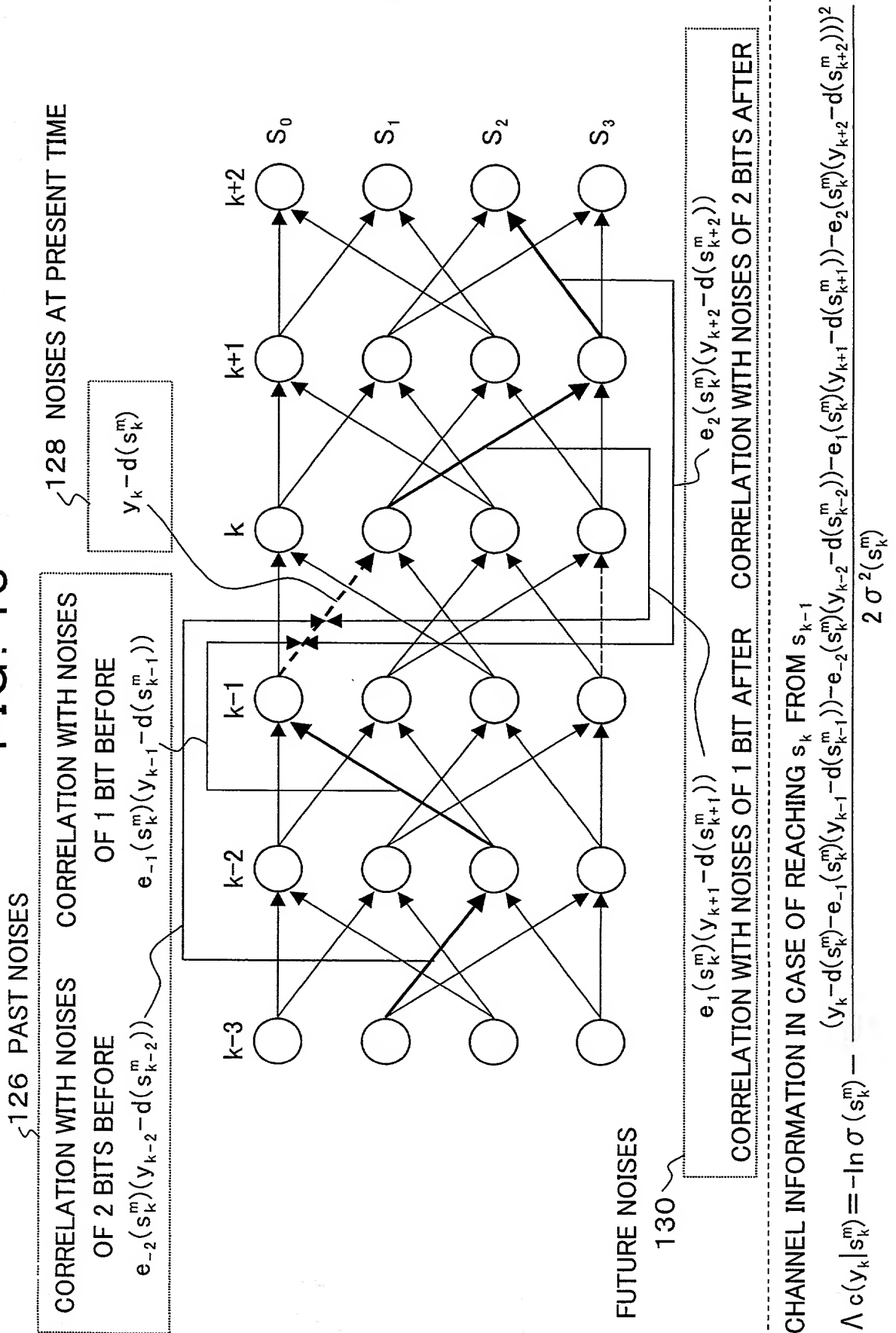
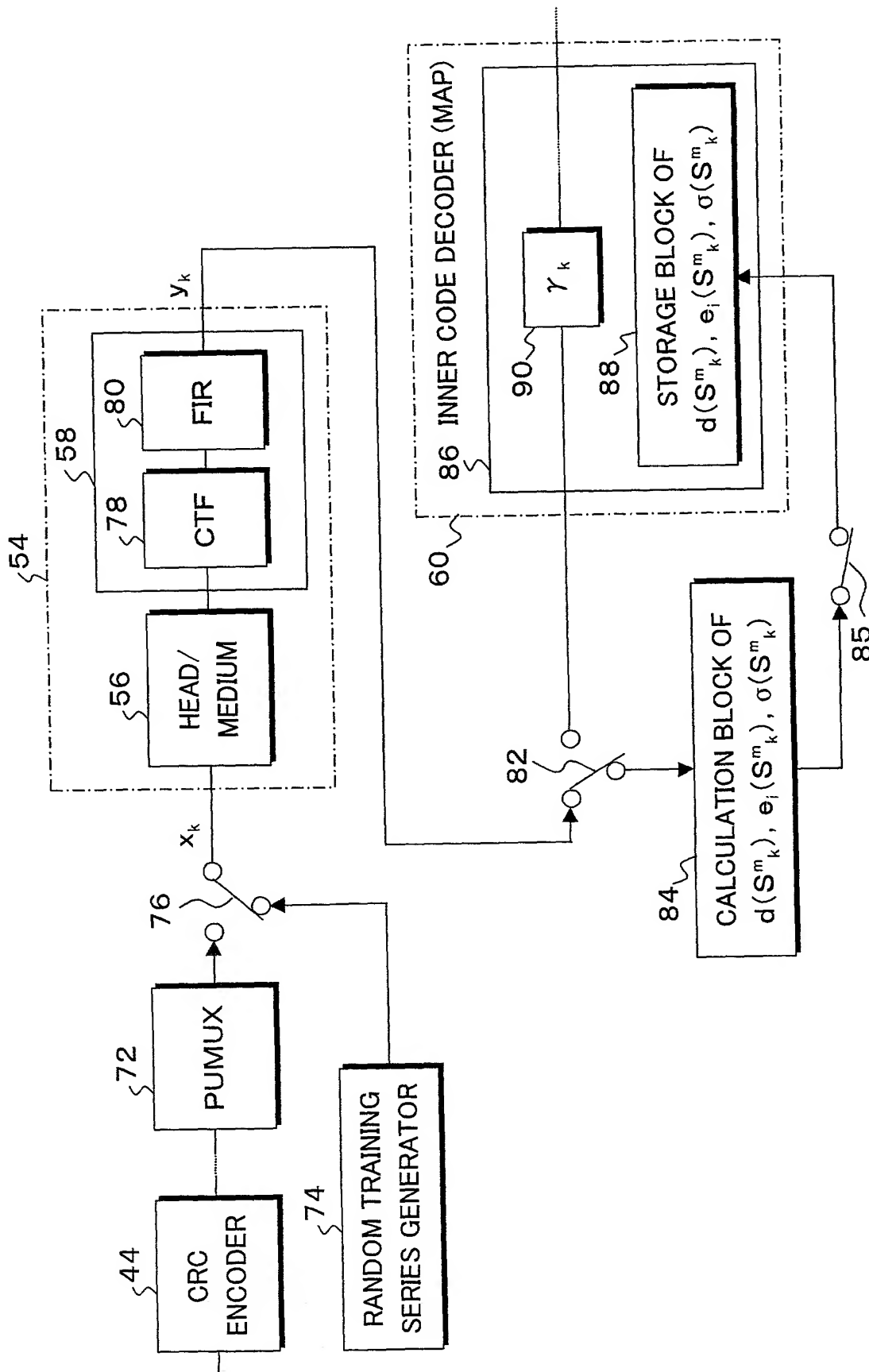


FIG. 13



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FIG. 14



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FIG. 15

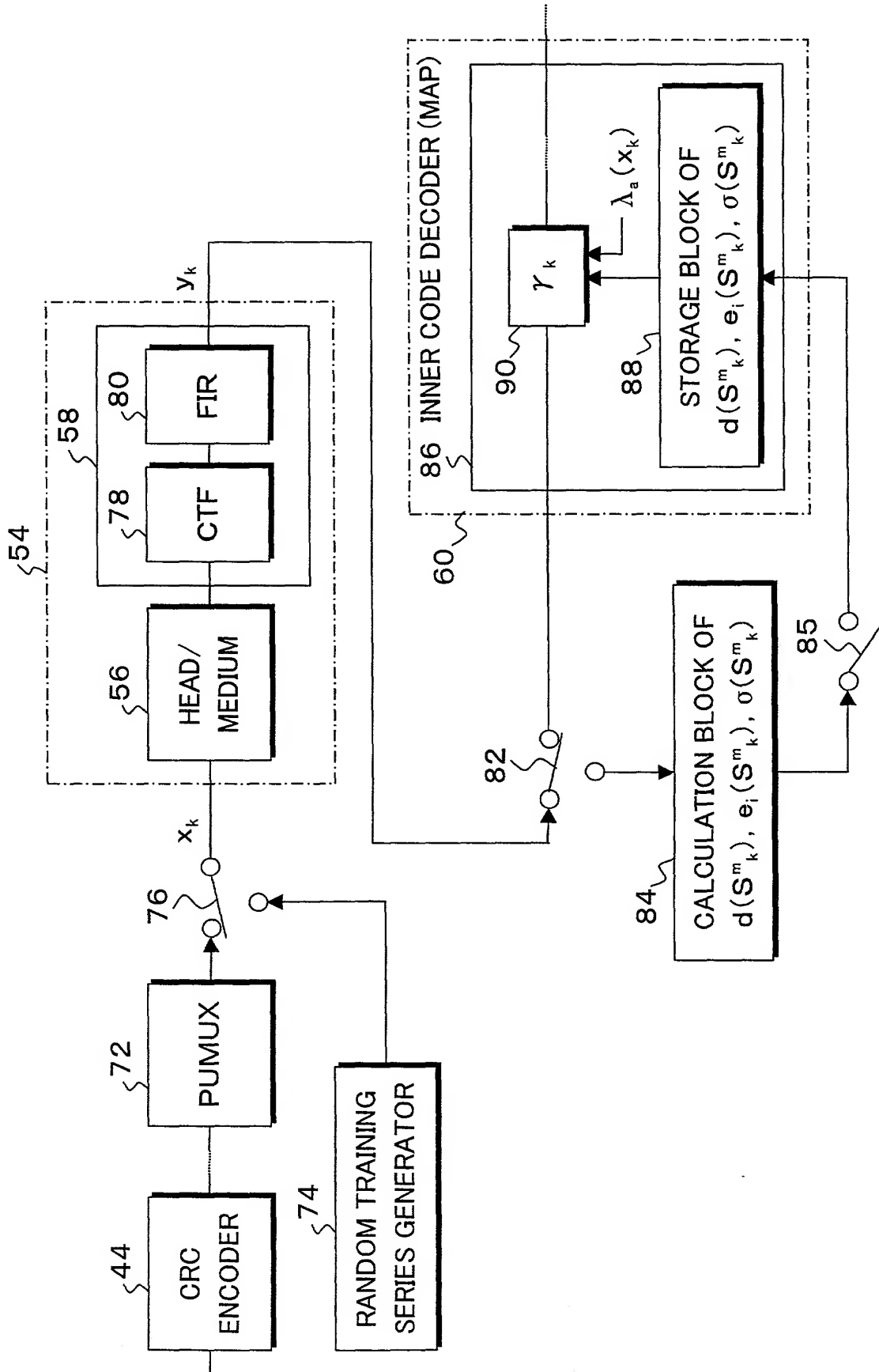
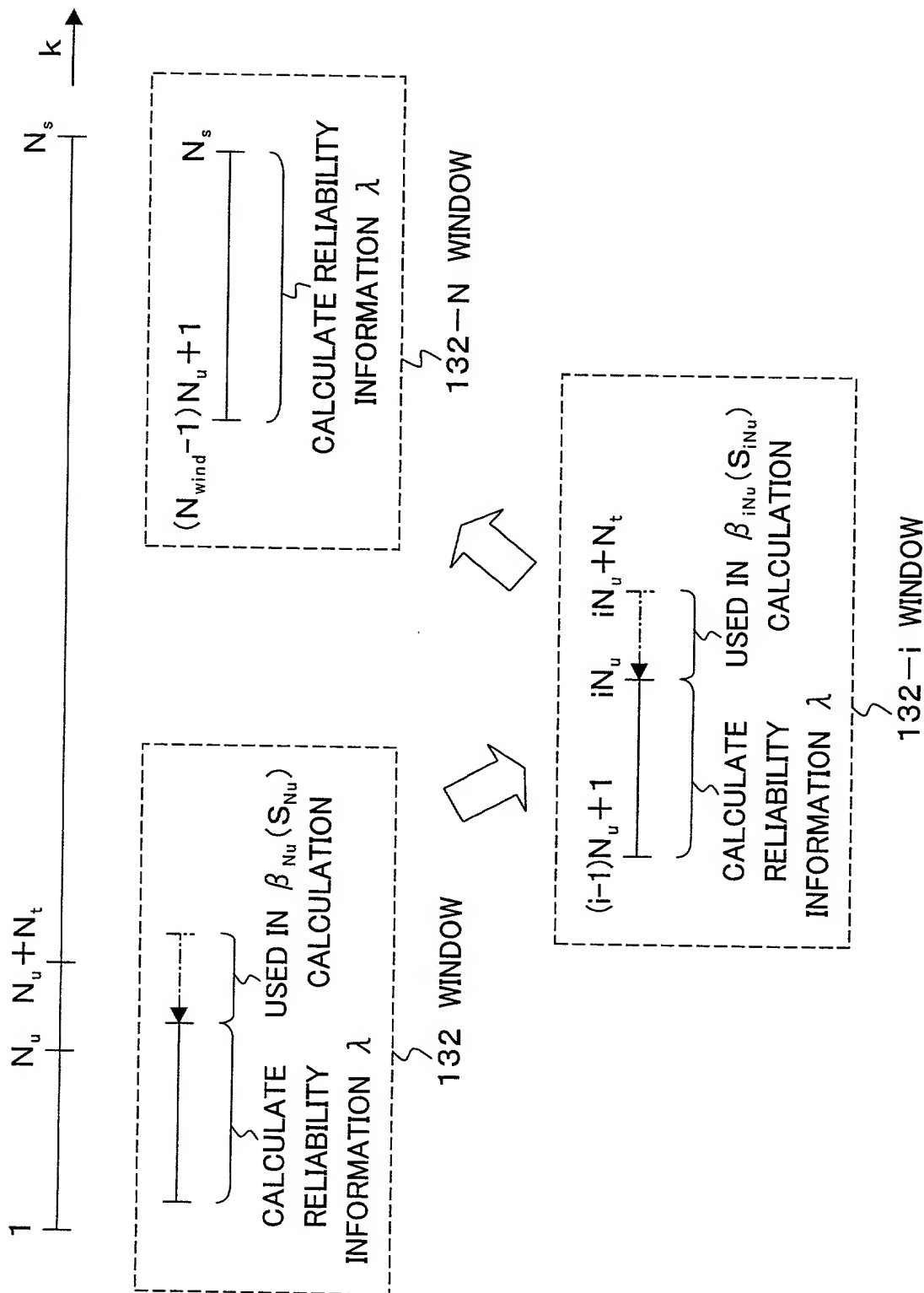
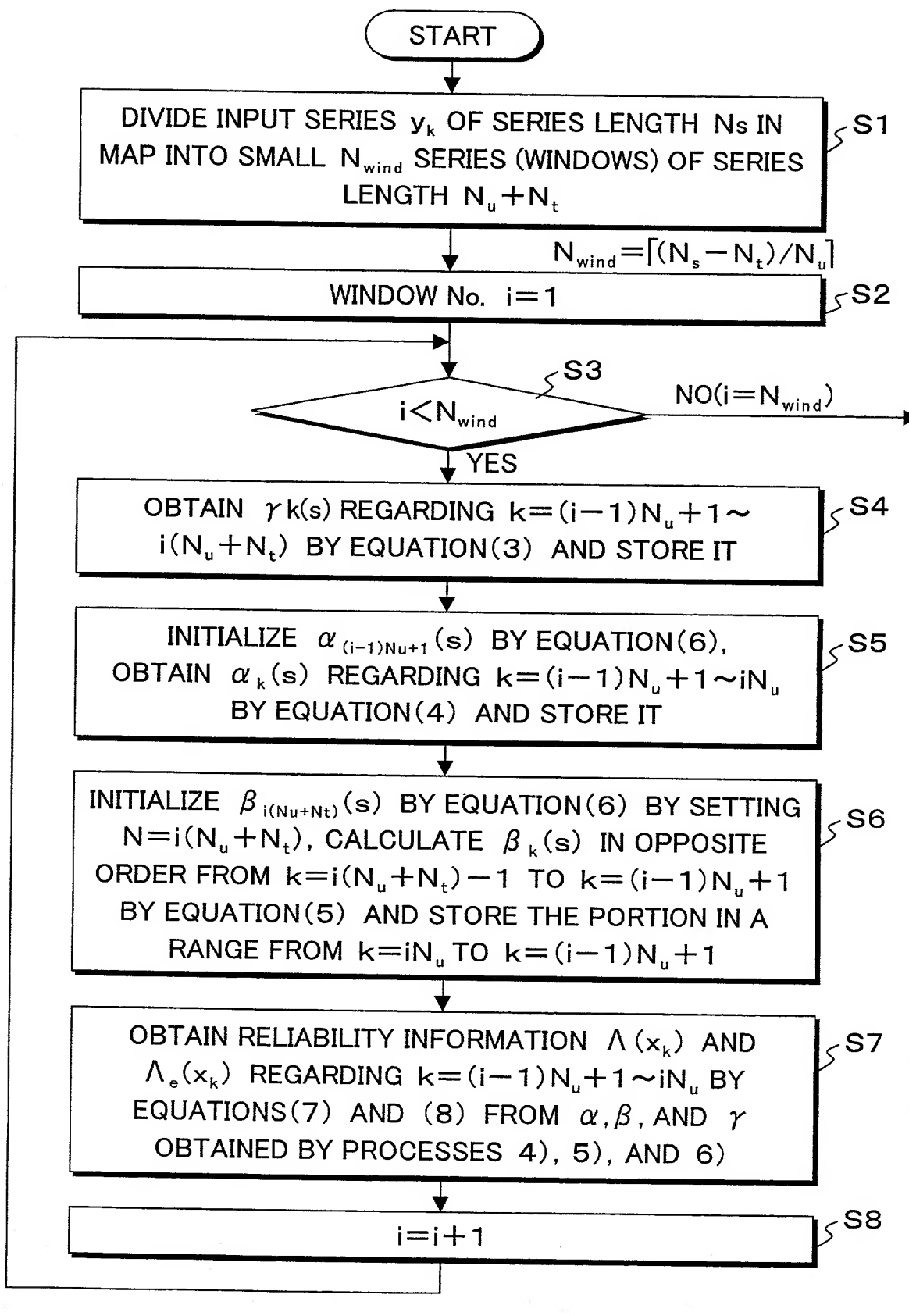


FIG. 16



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FIG. 17A



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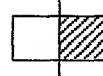
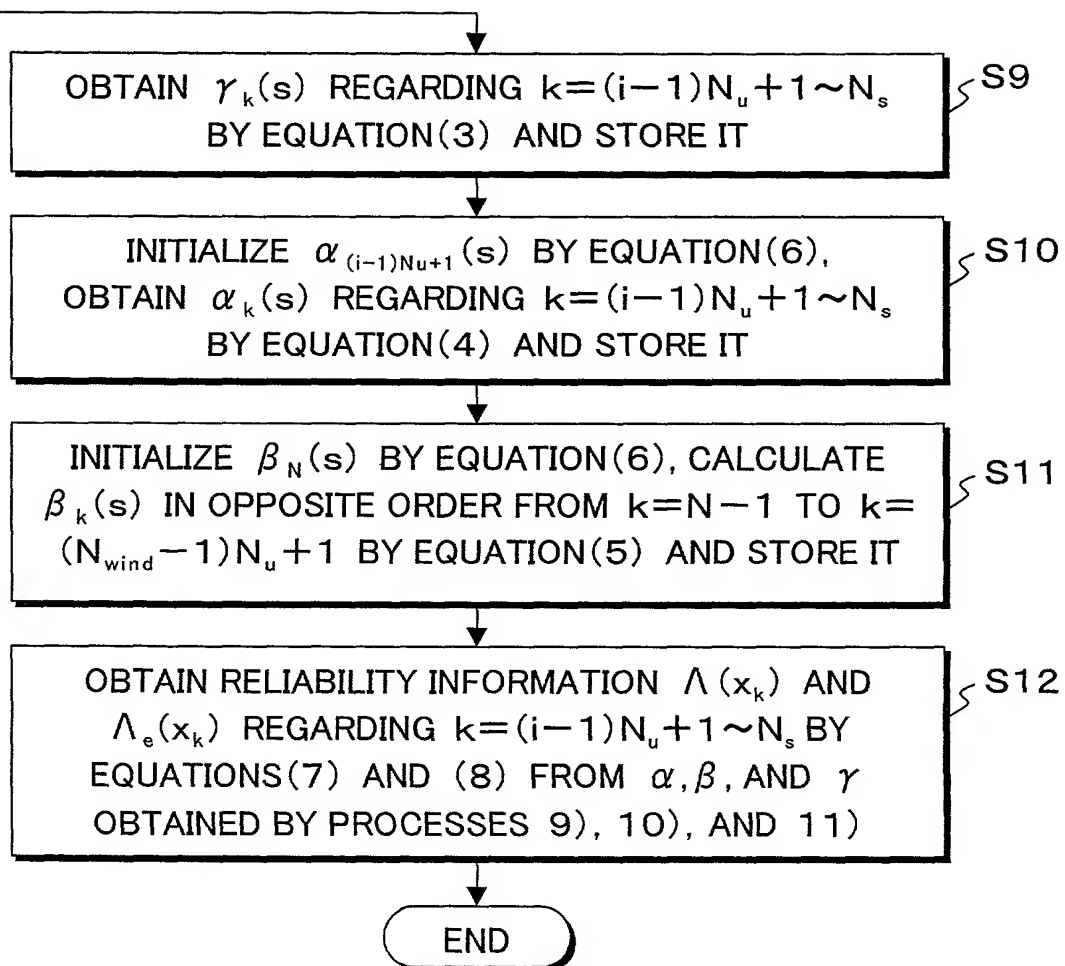


FIG. 17B



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FIG. 18

$x_{k-3}x_{k-2}x_{k-1}x_k$	STATE
0000	S^m_0
0001	S^m_1
0010	S^m_2
0011	S^m_3
0100	S^m_4
0101	NOT EXIST
0110	S^m_6
0111	S^m_7
1000	S^m_8
1001	S^m_9
1010	NOT EXIST
1011	S^m_{11}
1100	S^m_{12}
1101	S^m_{13}
1110	S^m_{14}
1111	S^m_{15}

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FIG. 19

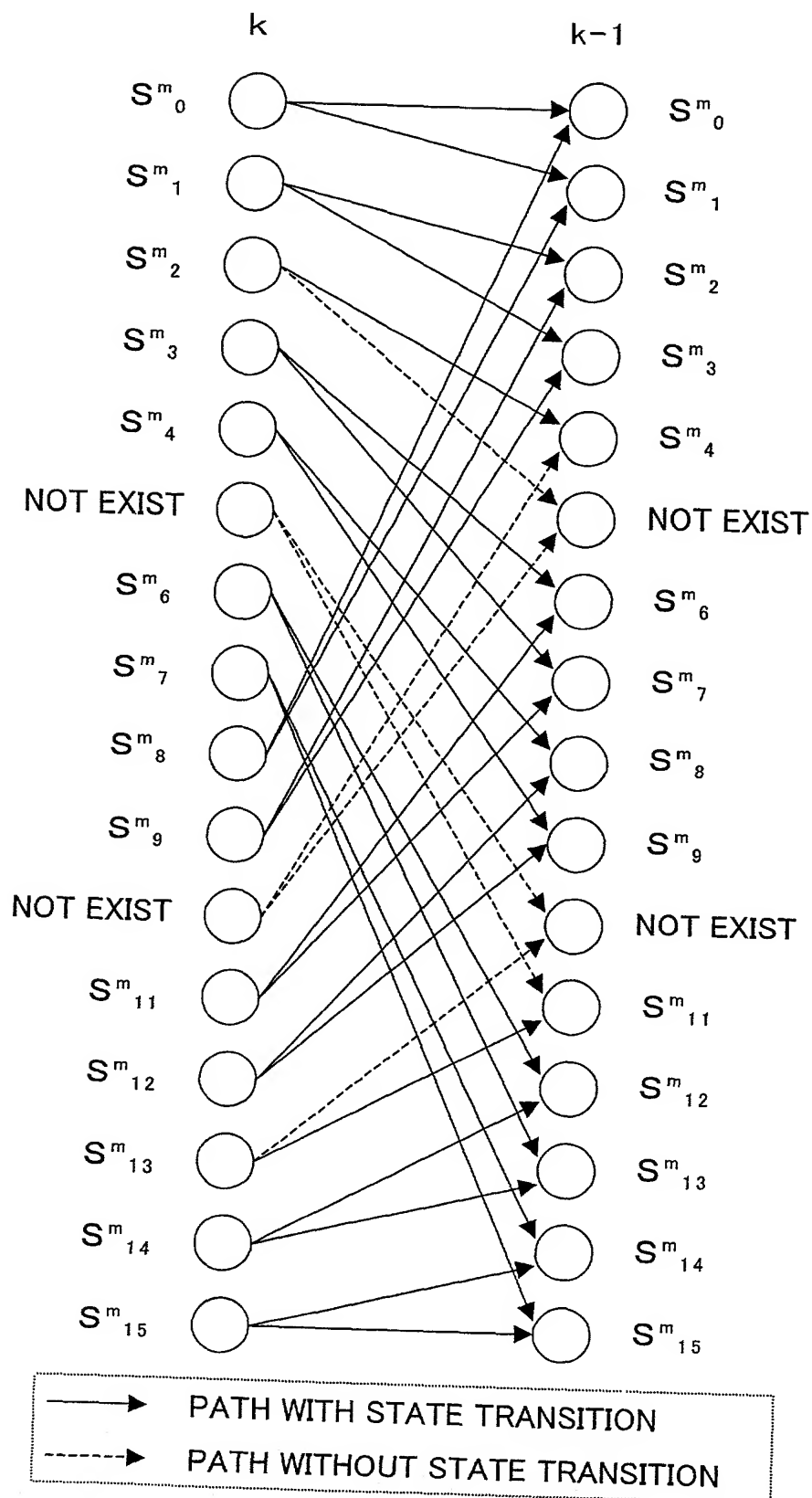


FIG. 20

STATE	CORRELATION OF NOISES						STANDARD DEVIATION OF NOISES $\sigma(S^m_k)$	MEAN VALUE OF EQUALIZATION SIGNAL $d(S^m_k)$
	$e_{-L}(S^m_k)$	...	$e_{-1}(S^m_k)$	$e_1(S^m_k)$	...	$e_M(S^m_k)$		
S^m_0	$e_{-L}(S^m_0)$	...	$e_{-1}(S^m_0)$	$e_1(S^m_0)$	...	$e_M(S^m_0)$	$\sigma(S^m_0)$	$d(S^m_0)$
S^m_1	$e_{-L}(S^m_1)$	...	$e_{-1}(S^m_1)$	$e_1(S^m_1)$	...	$e_M(S^m_1)$	$\sigma(S^m_1)$	$d(S^m_1)$
S^m_2	$e_{-L}(S^m_2)$	...	$e_{-1}(S^m_2)$	$e_1(S^m_2)$	...	$e_M(S^m_2)$	$\sigma(S^m_2)$	$d(S^m_2)$
S^m_3	$e_{-L}(S^m_3)$	...	$e_{-1}(S^m_3)$	$e_1(S^m_3)$	...	$e_M(S^m_3)$	$\sigma(S^m_3)$	$d(S^m_3)$
S^m_4	$e_{-L}(S^m_4)$	...	$e_{-1}(S^m_4)$	$e_1(S^m_4)$	...	$e_M(S^m_4)$	$\sigma(S^m_4)$	$d(S^m_4)$
NOT EXIST	—	...	—	—	...	—	—	—
S^m_6	$e_{-L}(S^m_6)$	...	$e_{-1}(S^m_6)$	$e_1(S^m_6)$	...	$e_M(S^m_6)$	$\sigma(S^m_6)$	$d(S^m_6)$
S^m_7	$e_{-L}(S^m_7)$	...	$e_{-1}(S^m_7)$	$e_1(S^m_7)$	...	$e_M(S^m_7)$	$\sigma(S^m_7)$	$d(S^m_7)$
S^m_8	$e_{-L}(S^m_8)$	...	$e_{-1}(S^m_8)$	$e_1(S^m_8)$	...	$e_M(S^m_8)$	$\sigma(S^m_8)$	$d(S^m_8)$
S^m_9	$e_{-L}(S^m_9)$	...	$e_{-1}(S^m_9)$	$e_1(S^m_9)$	...	$e_M(S^m_9)$	$\sigma(S^m_9)$	$d(S^m_9)$
NOT EXIST	—	...	—	—	...	—	—	—
S^m_{11}	$e_{-L}(S^m_{11})$	...	$e_{-1}(S^m_{11})$	$e_1(S^m_{11})$	...	$e_M(S^m_{11})$	$\sigma(S^m_{11})$	$d(S^m_{11})$
S^m_{12}	$e_{-L}(S^m_{12})$	...	$e_{-1}(S^m_{12})$	$e_1(S^m_{12})$	...	$e_M(S^m_{12})$	$\sigma(S^m_{12})$	$d(S^m_{12})$
S^m_{13}	$e_{-L}(S^m_{13})$	...	$e_{-1}(S^m_{13})$	$e_1(S^m_{13})$	...	$e_M(S^m_{13})$	$\sigma(S^m_{13})$	$d(S^m_{13})$
S^m_{14}	$e_{-L}(S^m_{14})$	...	$e_{-1}(S^m_{14})$	$e_1(S^m_{14})$	...	$e_M(S^m_{14})$	$\sigma(S^m_{14})$	$d(S^m_{14})$
S^m_{15}	$e_{-L}(S^m_{15})$	...	$e_{-1}(S^m_{15})$	$e_1(S^m_{15})$	...	$e_M(S^m_{15})$	$\sigma(S^m_{15})$	$d(S^m_{15})$